

WHAT IS CLAIMED IS:

1 1. A method of providing a remote networked computer with a
2 service session using one of a plurality of similarly
3 functioning software applications residing on different
4 servers with different unique network addresses, the method
5 comprising:

6 receiving, from the remote computer and at a device
7 having a unique network address that is different from the
8 network address of any of the servers, a packet-based message
9 comprising a request for a service session;

10 assigning one of the several servers to be used by the
11 remote computer in the service session; and

12 transmitting, to the remote computer, a packet-based
13 message comprising the unique network address of the assigned
14 server for the remote user to address subsequent messages
15 during the service session.

1 2. The method of claim 1 further comprising receiving, at the
2 assigned server, subsequent packet-based messages from the
3 remote computer as part of the service session, the
4 subsequent messages each being addressed to the unique
5 network address of the assigned server.

1 3. The method of claim 2 further comprising, receiving, at the
2 assigned server, periodic packet-based test messages from
3 the remote computer, and in response, transmitting a
4 packet-based message back to the remote computer to
5 indicate an operable connection.

1 4. The method of claim 1, wherein the device that receives the
2 message comprising a request for a service session is a
3 load balancer.

1 5. The method of claim 1, wherein the software applications
2 involve interaction between multiple remote computers.

1 6. The method of claim 5, wherein the software applications
2 provide Internet telephony service.

1 7. The method of claim 5, wherein the software applications
2 are multiple-user gaming applications.

1 8. The method of claim 5, wherein the software applications
2 are music-sharing applications.

1 9. The method of claim 5, wherein the software applications
2 are peer-to-peer applications.

1 10. The method of claim 4, wherein the message comprising
2 a request for a service session includes a network address
3 header containing the unique network address of the load
4 balancer, a data port address header, and data fields
5 associated with the software application.

1 11. The method of claim 10, wherein the data fields
2 associated with the software application includes a length
3 field, a type field, and a field containing the network
4 address of the remote computer that requested the service
5 session.

1 12. The method of claim 1, wherein the message transmitted
2 to the remote computer comprising the unique network
3 address of the assigned server includes a network address
4 header containing a unique network address associated with
5 the remote computer that requested the service session, a
6 data port address header, and data fields associated with
7 the software application.

1 13. The method of claim 12, wherein the data fields
2 associated with the software applications includes a length
3 field, a type field, and a field containing the network
4 address of the assigned server.

1 14. The method of claim 1, wherein the unique network
2 addresses are all unique IP addresses.

1 15. The method of claim 1, wherein the packet-based
2 message comprising the unique network address of the
3 assigned server is transmitted by the assigned server.

1 16. The method of claim 1, wherein the packet-based
2 message comprising the unique network address of the
3 assigned server is transmitted by a load balancer.

1 17. An apparatus for providing service sessions to remote
2 networked computers, comprising:
3 a plurality of servers each having a different unique
4 network address, each of the servers for executing a similarly
5 functioning software application to provide a service session;
6 a load balancer having a unique network address different
7 from the unique network address of any of the servers, the
8 load balancer comprising a first processor and first memory
9 for storing thereon instructions that when executed by the
10 first processor assigns, in response to receiving from a
11 remote networked computer a packet-based message comprising a
12 request for a service session, one of the servers to be used
13 by the remote computer in the service session;

14 a second processor and second memory for storing thereon
15 instructions that when executed by the second processor
16 transmits, to the remote networked computer that requested
17 service, a packet-based message containing the identity of the
18 unique network address of the assigned server to which the
19 remote networked computer is to address packet-based messages
20 during the service session.

1 18. The apparatus of claim 17, wherein the first and
2 second processors are the same, and the first and second
3 memory are the same, the second processor and second memory
4 thus being part of the load balancer.

1 19. The apparatus of claim 17, wherein the second
2 processor and the second memory are part of the assigned
3 server.

1 20. The apparatus of claim 17, wherein the software
2 applications involve interaction between multiple remote
3 users.

1 21. The apparatus of claim 20, wherein the software
2 applications are Internet telephony applications.

1 22. The apparatus of claim 20, wherein the software
2 applications are multiple user gaming applications.

1 23. The method of claim 20, wherein the software
2 applications are music-sharing applications.

1 24. The method of claim 20, wherein the software
2 applications are peer-to-peer applications.

1 25. The apparatus of claim 17, wherein the message
2 comprising a request for a service session includes a
3 network address header containing the unique network
4 address of the load balancer, a data port address header,
5 and data fields associated with the software application.

1 26. The apparatus of claim 25, wherein the data fields
2 associated with the software application includes a length
3 field, a type field, and a field containing the network
4 address of the remote computer that requested the service
5 session.

1 27. The apparatus of claim 17, wherein the message
2 transmitted to the remote computer comprising the unique
3 network address of the assigned server includes a network
4 address header containing a unique network address
5 associated with the remote computer that requested the
6 service session, a data port address header, and data
7 fields associated with the software application.

1 28. The apparatus of claim 27, wherein the data fields
2 associated with the software applications includes a length
3 field, a type field, and a field containing the network
4 address of the assigned server.

1 29. The apparatus of claim 17, wherein the unique network
2 addresses are all unique IP addresses.

1 30. An apparatus that assigns, for a service session, one
2 of a plurality of servers with unique network addresses,
3 each of the plurality of servers being capable of executing
4 a similarly functioning software application to provide the
5 service session, the apparatus comprising:

6 a unique network address that is different from the
7 unique network address of any of the plurality of servers;

8 a processor; and

9 memory for storing thereon instructions that when
10 executed by the processor perform the following functions:

11 assigns one of the servers to be used by a remote
12 computer in the service session in response to receiving
13 a packet-based message comprising a request for the
14 service session from the remote computer; and

15 transmits, to the remote computer that requested the
16 service session, a packet-based message containing the

17 unique network address of the assigned server to which
18 the remote computer is to address packet-based messages
19 during the service session.

1 31. The apparatus of claim 30, wherein the message
2 comprising a request for a service session includes a
3 network address header that contains the unique network
4 address of the apparatus, a data port address header, and
5 data fields associated with the software application.

1 32. The apparatus of claim 31, wherein the data fields
2 associated with the software application includes a length
3 field, a type field, and a field containing the network
4 address of the remote computer that requested the service
5 session.

1 33. The apparatus of claim 30, wherein the message
2 transmitted to the remote computer comprising the unique
3 network address of the assigned server includes a network
4 address header containing a unique network address
5 associated with the remote computer that requested the
6 service session, a data port address header, and data
7 fields associated with the software application.

1 34. The apparatus of claim 33, wherein the data fields
2 associated with the software applications includes a length
3 field, a type field, and a field containing the network
4 address of the assigned server.

1 35. Computer readable medium having stored thereon program
2 instructions that when executed by a processor in a
3 networked computer perform the following functions:

4 transmits, in response to a predetermined user command
5 input to the networked computer, a packet-based message
6 comprising a request for a service session to a remote service
7 provider, the message being addressed to a unique network
8 address associated with the service provider, the service
9 provider comprising a plurality of different servers with
10 different unique network addresses, each of the servers having
11 thereon similarly functioning software applications to provide
12 a service session;

13 in response to receiving from the service provider a
14 packet-based message comprising a unique network address for
15 one of the plurality of servers that has been assigned for the
16 service session, transmits during the service session packet-
17 based messages addressed to the unique network address of the
18 assigned server.

1 36. The computer readable medium of claim 35, wherein the
2 service session involves interaction between multiple
3 networked computers remote from the service provider.

1 37. The computer readable medium of claim 36, wherein the
2 service session is an Internet telephony application.

1 38. The computer readable medium of claim 36, wherein the
2 service session is a multiple-user gaming application.

1 39. The computer readable medium of claim 35, further
2 comprising instructions that when executed by the processor
3 perform the following functions:

4 periodically transmits during the service session
5 packet-based test messages addressed to the unique network
6 address of the assigned server;

7 determines that a connection with the assigned server
8 is disconnected if a packet-based message responding to the
9 test message is not received from the assigned server
10 within a predetermined period of time.

1 40. The computer readable medium of claim 39, further
2 comprising instructions that when executed by the processor
3 perform the following function:
4 in response to determining that a connection with the

5 assigned server is disconnected, transmits a packet-based
6 message comprising a request for a service session to the
7 remote service provider and addressed to the unique network
8 address associated with the service provider.

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